

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A method for cleaning a surface of a substrate, which comprises at least the following steps (1) and (2), wherein the step (2) is carried out after carrying out the step (1):

Step (1): A cleaning step of cleaning the surface of the substrate with an alkaline cleaning agent containing a complexing agent, and

Step (2): A cleaning step employing a cleaning agent having a hydrofluoric acid content C (wt%) of from 0.03 to 3 wt%, wherein the cleaning time t (seconds) of the substrate with said cleaning agent is at most 45 seconds, and C and t satisfy the relationship of $0.25 \leq tC^{1.29} \leq 5$.

Claim 2 (Original): The method for cleaning a surface of a substrate according to Claim 1, wherein the complexing agent is a compound having nitrogen as a donor atom, and a carboxyl group and/or a phosphonic acid group.

Claim 3 (Original): The method for cleaning a surface of a substrate according to Claim 2, wherein the complexing agent is a compound having an aromatic hydrocarbon ring, and at least two OH groups and/or O⁻ groups directly bonded to carbon atoms constituting said ring.

Claim 4 (Original): The method for cleaning a surface of a substrate according to Claim 3, wherein the complexing agent is one or more selected from the group consisting of ethylenediamine tetracetic acid (EDTA), ethylenediamine di-o-hydroxyphenylacetic acid

(EDDHA) and/or its derivatives, diethylenetriamine pentacetic acid (DTPA), and propylenediamine tetra(methylenephosphonic acid) (PDTMP).

Claim 5 (Original): The method for cleaning a surface of a substrate according to Claim 1, wherein the concentration of the complexing agent in the cleaning agent used in the step (1) is from 1 to 10,000 wt ppm.

Claim 6 (Original): The method for cleaning a surface of a substrate according to Claim 1, wherein the cleaning agent used in the step (1) contains ammonium hydroxide.

Claim 7 (Original): The method for cleaning a surface of a substrate according to Claim 6, wherein the pH of the cleaning agent used in the step (1) is at least 9.

Claim 8 (Currently Amended): An apparatus for cleaning a surface of a substrate, ~~characterized by employing~~ capable of carrying out the method for cleaning a surface of a substrate as defined in Claim 1, wherein the apparatus comprises first means for first cleaning the surface of the substrate with an alkaline cleaning agent containing a complexing agent, second means for second cleaning the surface of the substrate, after first cleaning of the substrate, with a cleaning agent having a hydrofluoric acid content C (wt%) of from 0.03 to 3 wt%, means for controlling said second means to a cleaning time t (seconds) of the substrate with said cleaning agent of at most 45 seconds, whereby C and t are controlled to satisfy the relationship of $0.25 \leq tC^{1.29} \leq 5$.

Claim 9 (Original): A method for cleaning a surface of a substrate, which comprises at least the following steps (2) and (3), wherein the step (3) is carried out after carrying out the step (2):

Step (2): A cleaning step employing a cleaning agent having a hydrofluoric acid content C (wt%) of from 0.03 to 3 wt%, wherein the cleaning time t (seconds) of the substrate with said cleaning agent is at most 45 seconds, and C and t satisfy the relationship of $0.25 \leq tC^{1.29} \leq 5$, and

Step (3): A cleaning step of cleaning the surface of the substrate with an alkaline cleaning agent.

Claim 10 (Original): The method for cleaning a surface of a substrate according to Claim 9, wherein the cleaning agent used in the step (3) contains a complexing agent.

Claim 11 (Original): The method for cleaning a surface of a substrate according to Claim 10, wherein the complexing agent is a compound having nitrogen as a donor atom, and a carboxyl group and/or a phosphonic acid group.

Claim 12 (Original): The method for cleaning a surface of a substrate according to Claim 11, wherein the complexing agent is a compound having an aromatic hydrocarbon ring, and at least two OH groups and/or O⁻ groups directly bonded to carbon atoms constituting said ring.

Claim 13 (Original): The method for cleaning a surface of a substrate according to Claim 12, wherein the complexing agent is one or more selected from the group consisting of ethylenediamine tetracetic acid (EDTA), ethylenediamine di-o-hydroxyphenylacetic acid

(EDDHA) and/or its derivatives, diethylenetriamine pentacetic acid (DTPA), and propylenediamine tetra(methylenephosphonic acid) (PDTMP).

Claim 14 (Original): The method for cleaning a surface of a substrate according to Claim 10, wherein the concentration of the complexing agent in the cleaning agent used in the step (3) is from 1 to 10,000 wt ppm.

Claim 15 (Original): The method for cleaning a surface of a substrate according to Claim 9, wherein the cleaning agent used in the step (3) contains ammonium hydroxide.

Claim 16 (Original): The method for cleaning a surface of a substrate according to Claim 15, wherein the pH of the cleaning agent used in the step (3) is at least 9.

Claim 17 (Currently Amended): An apparatus for cleaning a surface of a substrate, ~~characterized by employing~~ capable of carrying out the method for cleaning a surface of a substrate as defined in Claim 9, wherein the apparatus comprises first means for first cleaning the surface of the substrate with a cleaning agent having a hydrofluoric acid content C (wt%) of from 0.03 to 3 wt%, means for controlling said first means to a cleaning time t (seconds) of the substrate with said cleaning agent of at most 45 seconds, whereby C and t are controlled to satisfy the relationship of $0.25 \leq tC^{1.29} \leq 5$, and second means for second cleaning the surface of the substrate, after first cleaning of the substrate, with an alkaline cleaning agent.

Claim 18 (New): The method for cleaning a surface of a substrate according to Claim 1, wherein C is from 0.1 to 1 wt%.

Claim 19 (New): The method for cleaning a surface of a substrate according to Claim 18, wherein C is from 0.2 to 0.8 wt%.

Claim 20 (New): The method for cleaning a surface of a substrate according to Claim 9, wherein C is from 0.1 to 1 wt%.

Claim 21 (New): The method for cleaning a surface of a substrate according to Claim 20, wherein C is from 0.2 to 0.8 wt%.

DISCUSSION OF THE AMENDMENT

Claims 8 and 17 have been amended to recite means for the various steps recited in Claims 1 and 9, respectively. See also the specification at page 36, line 27ff, which discloses that the cleaning apparatus may be of any type so long as it is capable of carrying out the cleaning method of the present invention, and exemplary type apparatus.

New Claims 18-21 have been added, as supported in the specification at page 30, lines 5-9.

No new matter is believed to have been added by the above amendment. Claims 1-21 are now pending in the application.